



MICHIGAN DEPARTMENT OF
ENVIRONMENTAL QUALITY

John Engler, Governor • Russell J. Harding, Director

ENVIRONMENTAL RESPONSE DIVISION

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INFORMATION BULLETIN

Project Update

December 1999

ALLIED PAPER, INC./PORTAGE CREEK/KALAMAZOO RIVER SUPERFUND SITE

Allied Paper Operable Unit 1 Kalamazoo, Michigan

Time Critical Removal Was An Outstanding Success!

This information bulletin provides update information on the time-critical removal cleanup action being conducted at the Allied Paper Operable Unit 1 (OU1) in Kalamazoo, Michigan.

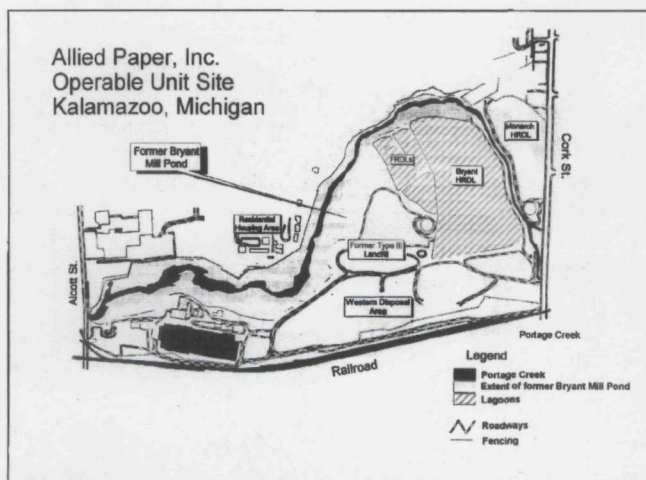


Figure 1: Map of Allied Paper Operable Unit 1

The 71-acre site is adjacent to residential and commercial areas along Portage Creek and is approximately three miles upstream of its confluence with the Kalamazoo River. The site is bounded by Cork Street to the south, Alcott Street to the north, a Conrail Railroad line to the west, and by

residential/commercial properties on the east. The time-critical removal cleanup action at Allied OU1 has removed polychlorinated biphenyls (PCBs) contaminated paper residuals (residuals), sediments, and soils from the former Bryant Mill Pond area and Portage Creek. The Michigan Department of Environmental Quality (MDEQ) and the United States Environmental Protection Agency (EPA) have determined that the cleanup is necessary to eliminate the imminent and substantial endangerment to public health and the environment. The Bryant Mill Pond is the most upstream source of PCB-contamination to the Allied Paper, Inc./Portage Creek/Kalamazoo River Superfund site. Analytical results obtained from samples of floodplain material indicated that PCB concentrations as high as 1,000 parts per million (ppm) were present prior to the removal action.

In spring of 1997, the MDEQ requested that the EPA assist them in performing an emergency removal of the PCB contamination in the former Bryant Mill Pond area and Portage Creek. Numerous emergency removal requests also came from local citizens, environmental groups, the city of Kalamazoo, and Kalamazoo County. The EPA discussed the needed removal action with the Allied Paper, Inc./Millennium Holdings (Allied) in the fall of 1997. However, Allied

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EQC4469 (REV 5/97)



was not interested in conducting the removal action. Under a settlement agreement, Allied agreed to reimburse the EPA and their contractors for the costs of the cleanup activities, up to \$7.5 million.

The portion of the former Bryant Mill Pond that was remediated included the area north of Alcott Street Dam; east and west to the embankments of the Portage Creek floodplain (under 790' elevation), and extending upstream to a point east of the southeast corner of the Bryant Historical Residual Dewatering Lagoon (Bryant HRDL).



Figure 2: Removal of PCB contaminated floodplain soils.

The EPA and their contractors, U.S. Army Corps of Engineers, Roy F. Weston, and Bailey Construction initially proposed to remove approximately 90,000 cubic yards of PCB-contaminated sediments from the creekbed and floodplain areas. However, due to the presence of more PCB-contaminated material than was originally estimated, approximately 150,000 cubic yards of material was excavated. Remediation activities began in June 1998 with the initial clearing of vegetation surrounding the site to allow for heavy equipment access. Portage Creek was temporarily diverted from its normal streambed in order to conduct "dry" excavation of the creek bed and floodplain soils. Excavation began in October 1998 and was completed in May 1999. Excavated material was placed in the

HRDL and the Bryant Former Residual Dewatering Lagoons (FRDLs).



Figure 3: The Bryant Lagoons are on higher ground and protected from Portage Creek flows by a stabilized dike.

The remediation cleanup level set by the EPA for this removal action was 10 ppm, with a goal of 1 ppm. The MDEQ recommended PCB cleanup goal for Allied Paper OU 1 was 0.33 ppm. Remediation proved to be very effective as PCB concentrations were dramatically reduced, with levels remaining in the sediments ranging from non-detect to 0.46 ppm. Approximately 92 percent of the verification samples analyzed were under 1 ppm. An estimated 21,000 pounds (10 tons) of PCBs were removed from the streambed and the floodplain soils. Additionally, approximately 7.5 million gallons of contaminated water were treated at the site through the on-site carbon filtration system, and discharged to the city of Kalamazoo wastewater treatment facility.

The original cost estimate regarding the time-critical removal cleanup action assumed approximately 90,000 cubic yards of contaminated material would be removed was \$7.5 million. To date, this budget has not significantly increased even though the excavation of additional PCB-contaminated material and associated activities were necessary.



Interim actions include the placement of a temporary cap on the contaminated material in the HRDL/FRDLs. The temporary cap was graded and vegetated to eliminate erosion from runoff and wind.

The Army Corps of Engineers has also planted seedlings and seeded the banks and floodplains with wetland vegetation to restore the riparian ecosystem in this area along Portage Creek. **Attachment A** to this bulletin contains before and after pictures of the Allied Paper OU1 during and after remediation.

The MDEQ will continue to work closely with the PRPs to complete the remedial investigation/feasibility study for the Allied Paper OU1. The MDEQ will prepare a Proposed Plan prior to the selection of the final remedy. When the Proposed Plan is available for review, a public meeting will be held locally to discuss the proposed remedy.

For more information about the Allied Paper OU1 please contact:

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Superfund Site History and Background

On August 3, 1990, the Allied Paper, Inc./Portage Creek/Kalamazoo River Superfund site was officially included on the National Priorities List (NPL) pursuant to the Comprehensive Environmental Response, Compensation, and Liability Act, 1980 PL 96-510. The site was placed on the NPL because of evidence that the sediments, soils, water column, and biota within the site were contaminated with PCBs.

The MDEQ released the Baseline Ecological Risk Assessment (ERA) for the site in June 1999. This ERA will be used to set the cleanup levels for the site, and can be found at the repositories identified on page 4.

For a detailed history of the site, consult previous fact sheets,



INFORMATION REPOSITORIES

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331 Hubbard Street
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(616) 673-4625

Charles Ransom Library
180 South Sherwood
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Saugatuck-Douglas Library
10 Mixer Street
Douglas, Michigan
(616) 857-8241

Kalamazoo Public Library
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Kalamazoo, Michigan
(616) 342-9837

Otsego District Library
219 South Farmer
Otsego, Michigan
(616) 694-9690

Waldo Library
Western Michigan University
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Attachment A

During Remediation

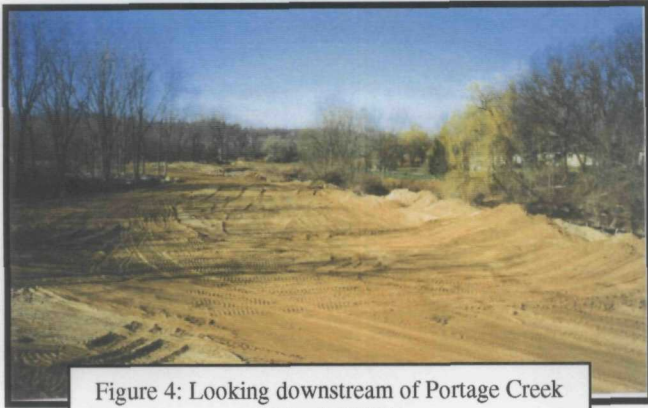


Figure 4: Looking downstream of Portage Creek
(March 1999)

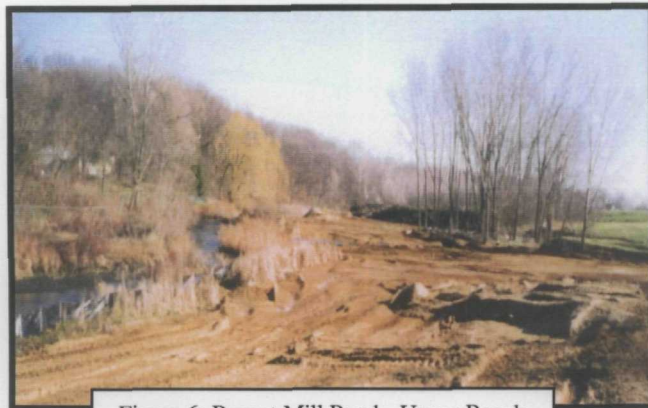


Figure 6: Bryant Mill Pond - Upper Reach
(March 1999)



Figure 8: Bryant Mill Pond - Middle Reach
(March 1999)

After Remediation

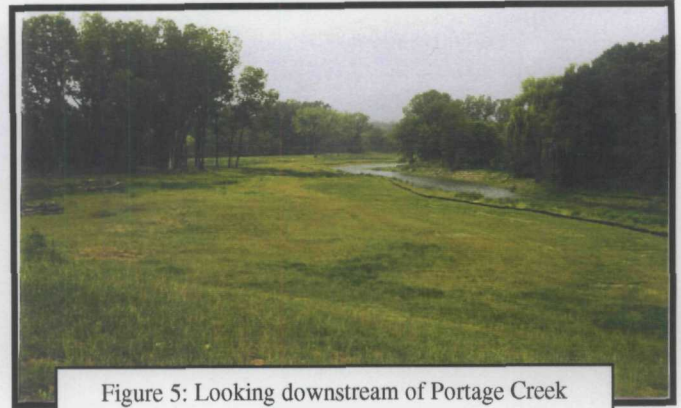


Figure 5: Looking downstream of Portage Creek
(August 1999)

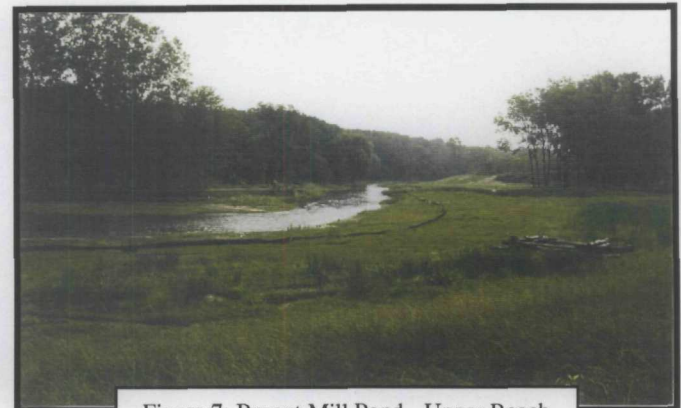


Figure 7: Bryant Mill Pond - Upper Reach
(August 1999)

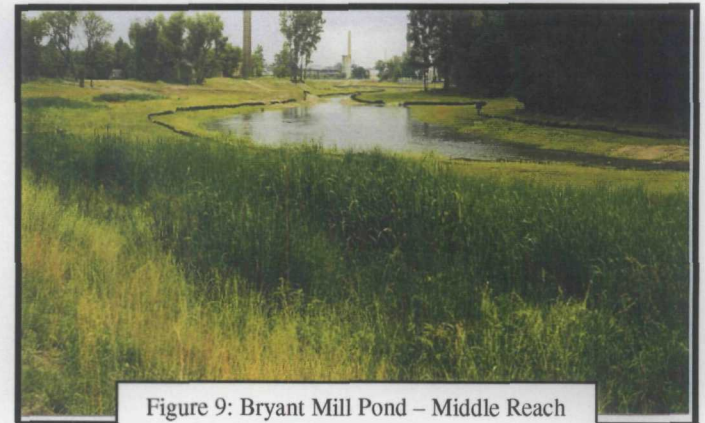


Figure 9: Bryant Mill Pond - Middle Reach
(August 1999)